Digital Technologies, Data, and Policies for Inclusive Trade and Development

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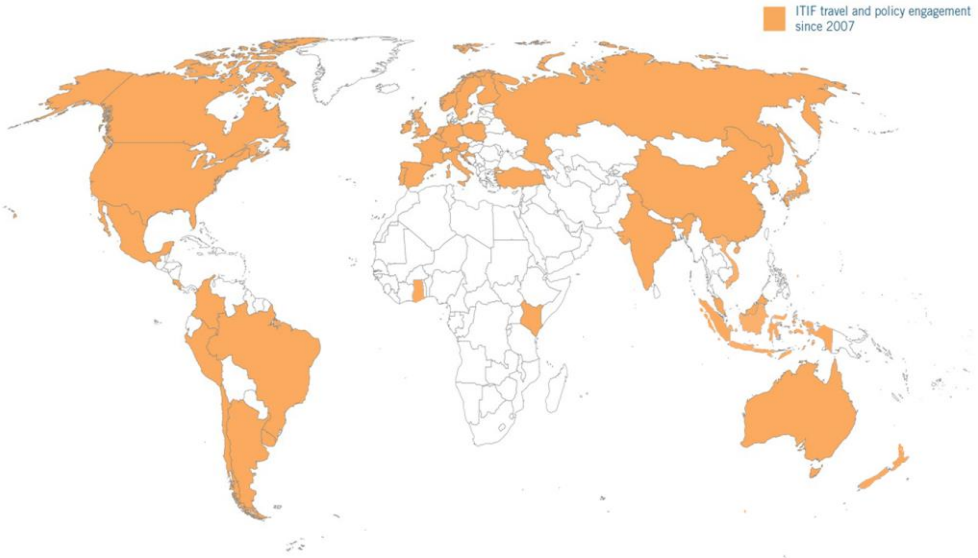
About ITIF

- The world's leading science and technology policy think tank.
- Supports policies driving global, innovation-based economic growth.
- Focuses intersection of technology innovation and public policy across several sectors:
  - Innovation and competitiveness
  - IT and data
  - Trade and globalization
  - Life sciences, agricultural biotech, and energy

Map: ITIF travel and policy engagement since 2007



Overview: Closing the Digital Divide & Supporting Digital Trade

- **The Role of Data**
- **False Promise of Data Nationalism (Data Localization)**
- **Policies Supporting Digital Trade and Data-Driven Innovation**

Note: Remarks Summarize New ITIF Report (4/1/19)

The False Appeal of Data Nationalism: Why the Value of Data Comes From How It's Used, Not Where It's Stored

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The False Appeal of Data Nationalism: Why the Value of Data Comes From How It's Used, Not Where It's Stored

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To maximize the economic and societal benefits of data and digital technologies, policymakers should resist the "data localization" trap and focus instead on the fundamentals of ICT adoption.

KEY TAKEAWAYS

- Requiring data to be stored and processed domestically does not drive economic development. Policymakers should focus instead on helping people and firms collect, analyze, and use data to improve innovation, competitiveness, and productivity.
- "Data localization" policies hurt economies by increasing prices and limiting availability of ICT products and services while creating few data center jobs.
- The right strategy is to encourage broad ICT adoption; reduce artificial costs of ICT; improve infrastructure for data innovation; maximize the supply of reusable data; and build workers' data-science and data-literacy skills.

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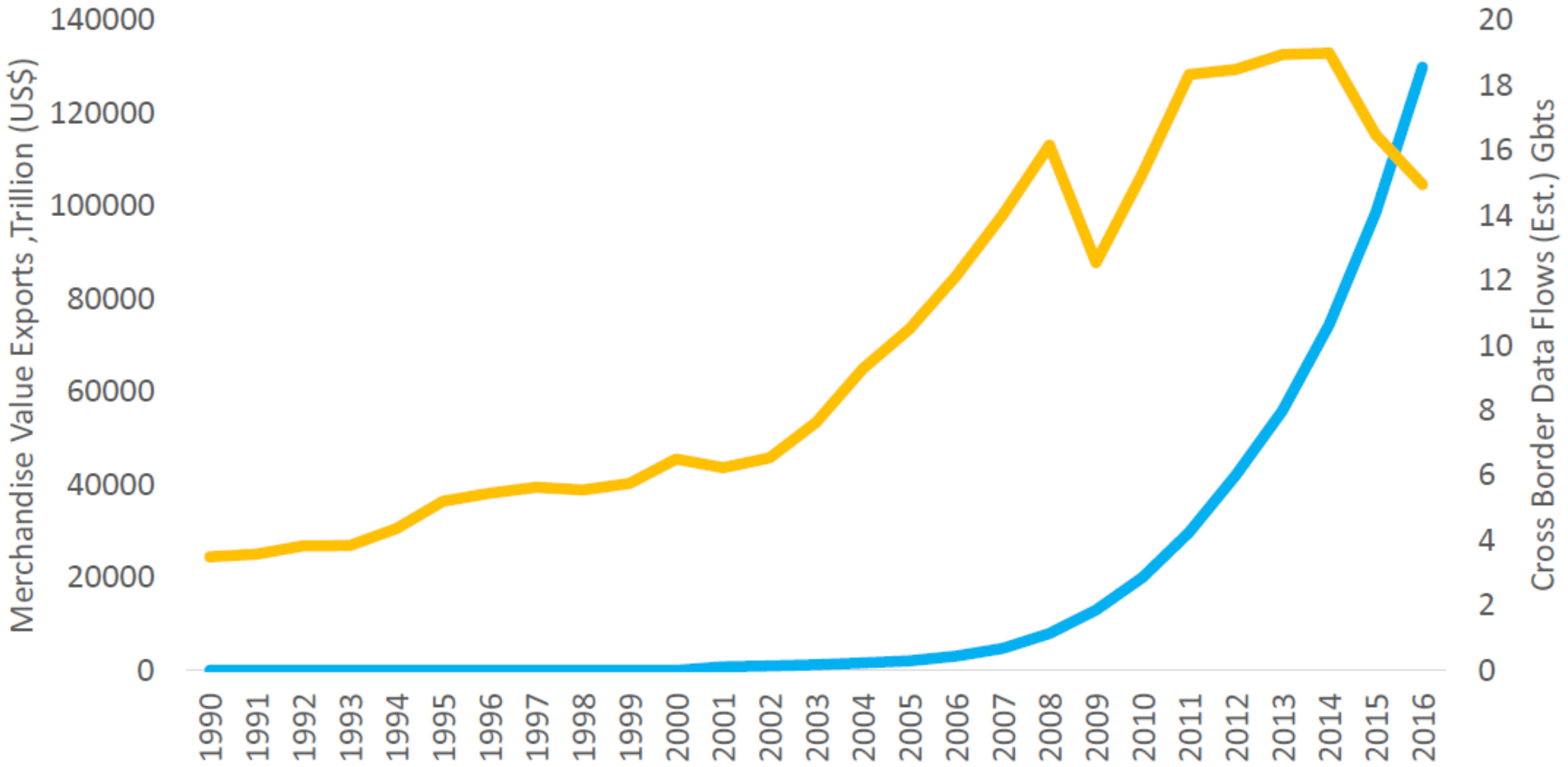
Data Flows and Increasingly Digitalized Global Economy



Sources: Victor Mulas, The World Bank; World Bank Data for Merchandise Value Exports and Telegeography for Cross Border Data Flows

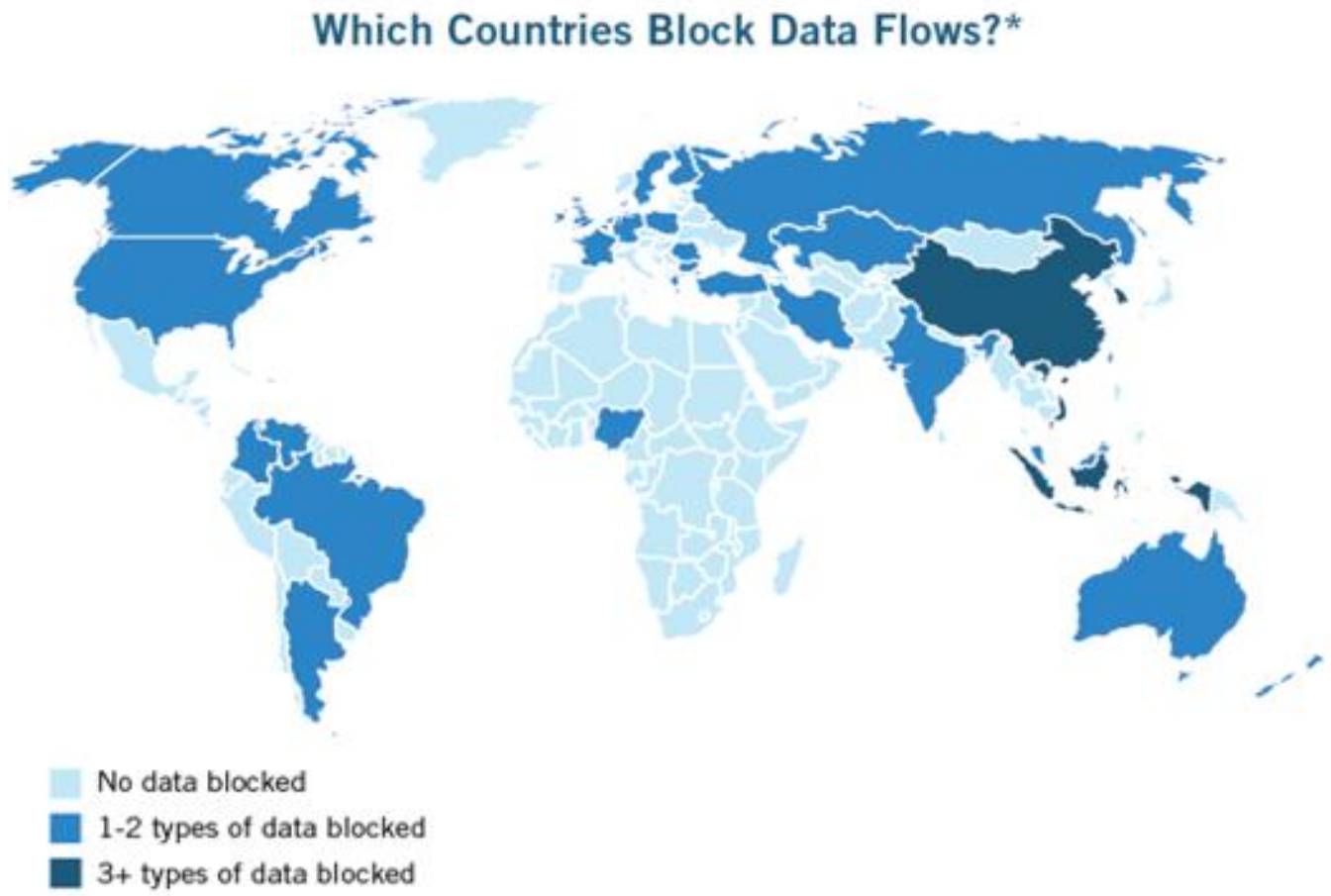
Digitalization, Trade, and Development

- Innovation and economic growth are increasingly driven by how firms collect, transfer, analyze, and act on data.
- Technology has opened the door to digital trade for developing countries, small companies and startups, and millions of individuals.
- Power of Platforms: Full suite of services enabling access to global markets. Benefit from network effects and economies of scale.
  - E.g. Mercado Libre, Amazon, Alibaba, eBay, JD.com, Lazada, Tokopedia, Americanas.com, Takealot, Jumia, Kilimall.

Challenge: Seizing the Opportunity of an Open Digital Economy

- Leaders need to be proactive and enact the right policies to seize the opportunity:
  - Domestically: Ensuring that people/firms can access and use ICTs.
  - Internationally: Ensuring rules help firms use technology to achieve economies of scale.
- E.g. Rwanda beat out Kenya to host Alibaba's first global electronic trading platform for agricultural produce.
  - The reward: Increased sales and prices for Rwandan coffee.

The False Promise of Data Nationalism



Source: ITIF, "Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?"

Data Localization Will Not Close the Digital Divide

- Data localization is misguided and harmful to digital development and trade.
  - Affects broader economic productivity and innovation as it raises cost of ICT for all firms and acts as a barrier to innovative digital services.
  - Stops local firms from using digital trade to achieve/build the economies of scale that are critical to success in global digital economy.

    United States and China have internal scale. Other countries/regions have to have access to international markets to get scale. =

Policies That Will Support Digital Trade & Data Innovation

- To maximize the economic & social benefits of data & digital technologies, policymakers should instead focus on:
  - Prioritizing broad adoption (not production) of ICT, especially by reducing costs of ICT;
  - Improving the infrastructure that supports data innovation and digital trade;
  - Maximizing the supply of reusable data, including by allowing it to flow across borders; and
  - Helping workers develop data-science and data-literacy skills.

Adoption/Deployment of ICT Will Close the Digital Divide

- Adoption/deployment of ICT over production of ICT
  - ICT is a key “general purpose technology”
  - Review of studies: “At both the firm and the country level, greater investment in ICT is associated with greater productivity growth.”
- E.g., ICT and Kenya (World Bank, 2010):
  - ICT the main driver of Kenya’s economic growth (2000-2010), responsible for roughly one-quarter of GDP growth.

Source: World Bank, Kenya Economic Update, 2010.

Reduce Costs of ICT

- Reduce costs and barriers to access data and data-reliant goods and services.
  - Eliminate (and avoid introducing further) tariffs on ICT imports;
  - Eliminate discriminatory taxes on ICT goods and services; and
  - Ensure that users can buy best-in-class technology from anywhere in the world (e.g., remove local content requirements, limits on foreign direct investment, and restrictive certification for ICT goods and services).

E.g. ITA - Focus on Broader Econ Benefits, Not Tariff Revenue

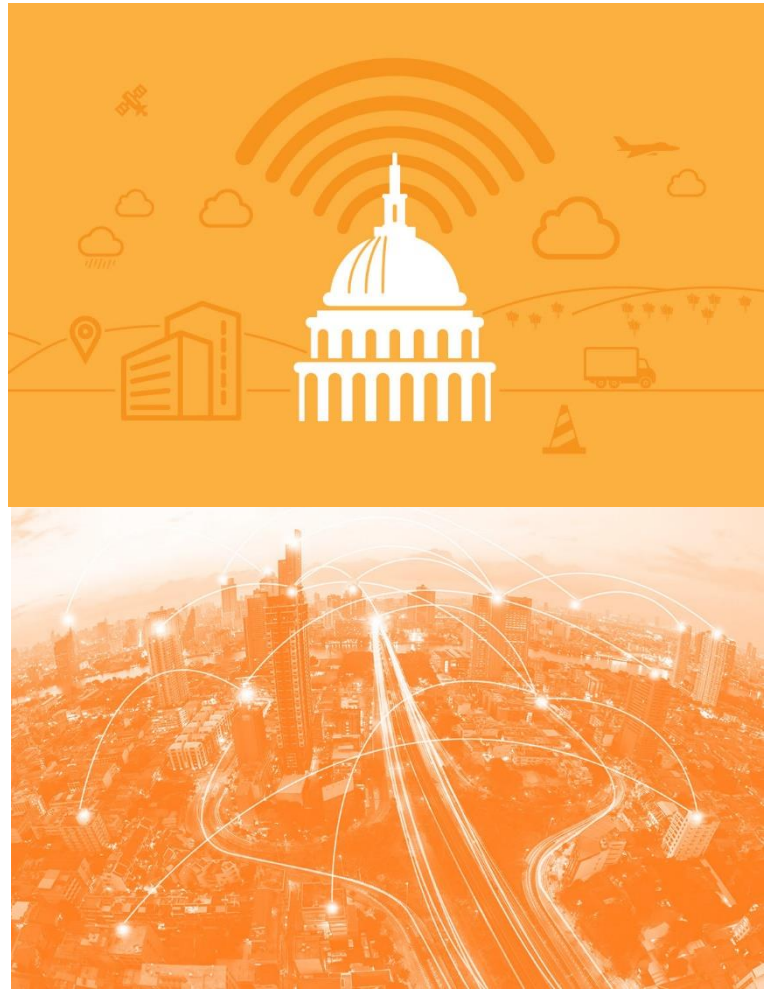
Source: ITIF, "How Joining the Information Technology Agreement Spurs Growth in Developing Nations"

Maximize the Supply of Reusable Data

- Increase the supply and use of data. Avoid policies that stifle the supply and flow of data.
- Starting point:
  - Assist more firms/people with using ICT and data.
  - Enact domestic data governance frameworks and digital trade agreements that allow data to flow freely across borders.

Maximizing the Supply of Reusable Data

- Enact “open data” laws to facilitate access to data the govt collects.
- Specify that firms use modern machine-readable data standards.
- Encourage the deployment of key technological platforms, like smart cities.



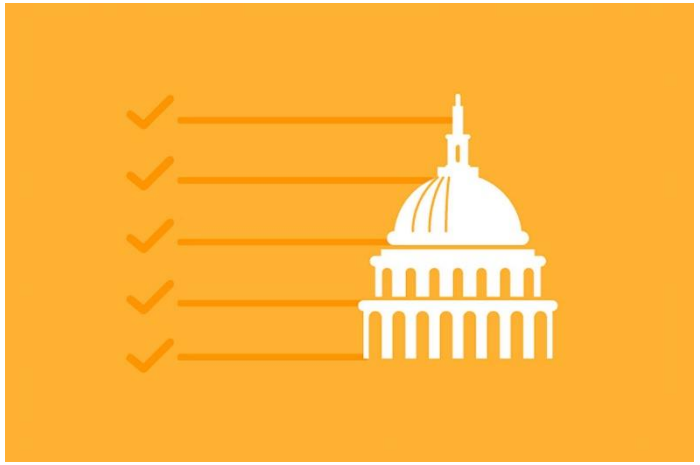
Source: Center for Data Innovation, How National Governments Can Help Smart Cities Succeed
Source: Center for Data Innovation, Open Data in the G8
Source: Center for Data Innovation, Everything the U.S. Government Is Doing to Help the Private Sector Build the Internet of Things

Related Objective: Close The “Data Divide”

- “Data divide”—The social and economic inequalities that may result from a lack of collection or use of data about individuals or communities.
- Policy responses:
  - Setup government data collection programs for hard-to-reach populations;
  - Ensure that funding programs consider the impact of “data poverty;”
  - Ensure digital literacy programs help individuals understand data-producing technologies, such as social media and the Internet of Things.

Develop Data-Science and Data-Literacy Skills in Workers

- Data innovation does not just happen; people make it happen.
- Key indicators:
  - The number of science and technology graduates a country produces,
  - The number of data science degree programs a country offers.
- See: Center for Data Innovation reports
  - The Best (U.S) States for Data Innovation
  - The State of Data Innovation in the EU



Digital Development and Digital Trade Policy

- Digital trade is international extension to domestic digital development.
- Digital trade rules help firms develop economies of scale.
  - China/US firms benefit from internal scale. Other countries/regions need to use trade.
- Especially the case for SMEs.
- E.g. ITIF Report: Crafting an Open and Innovative Digital Trade Agenda for Latin America.

Conclusion: Digital Development, Digital Policy, and Productivity

- Avoid: Short-term, damaging mercantilist focus on local tech production, local data storage, and digital duties.
- Focus on:
  - Long-term economic productivity that arises from broad adoption and deployment of ICT, use of data, and engagement in digital trade.
  - Supportive domestic and international data governance and digital trade frameworks and rules.

Thank You!

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